contained bones of the least auklet, 29 in all, including humeri, sterna, coracoids, and metacarpals.

Fratercula corniculata (Naumann): Horned Puffin

A single humerus from a cutting of Punuk-Thule age is the only bone of the horned puffin found in the collection. The scarcity of remains of this species and the next one may not necessarily indicate the numerical status of the two species in the area, as on St. Lawrence Island, "in spite of their abundance and size, neither of the puffins . . . seems to have figured very largely in the diet of the ancient Eskimos" (Journ. Washington Acad. Sci. 24: 96. 1934).

Lunda cirrhata (Pallas): Tufted Puffin

The tufted puffin is represented by five bones from two excavations of Punuk-Thule age.

Nyctea nyctea (Linnaeus): Snowy Owl

A single coracoid from a recent site (50–100 years old) is the only bone of this species in the collection. As on St. Lawrence Island, owls may not have been looked upon as food.

Corvus corax principalis Ridgway: Northern Raven

Two raven bones, one from the oldest site (1,500 years) and one of Punuk-Thule age (1,000 years) are all that represent this bird. However, this is due not to the scarcity of the raven but to the taboos regarding killing it. Not a single raven bone was found in the refuse mounds on St. Lawrence Island, where the raven is a common bird.

ICHTHYOLOGY.—*The gobies* Waitea *and* Mahidolia.[1]

HUGH M. SMITH, U. S. National Museum.

The two gobioid genera *Waitea* and *Mahidolia*, with a rather wide distribution in the Oriental and South Pacific regions (Philippine Islands, Samoan Islands, Java, and Thailand or Siam), have become somewhat involved in the literature, and it seems desirable, with the information and material now available, to attempt a clarification of their status. These genera are similar in possessing a pronounced backward extension of the jaws, but their general appearance is different and taxonomically they are quite distinct.

Genus **Waitea** Jordan and Seale

Jordan and Seale (1906) established *Waitea* as a new genus of gobies and indicated *Gobius mystacinus* Cuvier and Valenciennes (1837) as the genotype. No description of the genus was given except that it was close to *Gobionellus* but had the maxillaries produced backward as in *Opisthognathus*. Beyond the mere listing of *Waitea mystacina* (Cuvier and Valenciennes) as being known from Samoa and Java,

[1] Published by permission of the Secretary of the Smithsonian Institution. Received June 22, 1941.

there was no reference to any specimens taken in Samoan waters, although there was published a text figure from a drawing presumably made from a Samoan specimen. It is not a matter of record that the authors of *Waitea* compared their Samoan fish with any authentic specimen of *Gobius mystacinus*.

The first definition of the genus *Waitea* seems to have been given by Herre (1927) and was based on Jordan and Seale, reinforced by the information afforded by specimens from the Philippine Islands. Herre identified these fish as *Waitea mystacina;* and while his description was in some particulars considerably at variance with specimens from the Philippines and Samoa in the U. S. National Museum, Herre considered his specimens "unmistakably the same fish as shown in Jordan and Seale's figure."

The description and discussion of the genus *Waitea* given by Koumans (1931) were most unsatisfactory because his conclusions were based largely on the examination of two specimens in the Paris Museum collected in Java by Kuhl and van Hasselt and labeled *Gobius mystacinus* which were subsequently found by Koumans to represent *Oxyurichthys microlepis* (Bleeker). Koumans later examined the undoubted type of *Gobius mystacinus* in the Paris Museum but in trying (1935) to reconcile that type with *Waitea mystacina* of Jordan and Seale of which he had seen no specimens he ran into further difficulties and concluded his consideration of *Waitea* and *Waitea mystacina* in these words:

> The figure of *Waitea mystacina* (C. & V.) published by Jordan & Seale (Bull. Bur. Fish. xxv, 1905, p. 407, fig. 94) differs from the type specimen in Paris Museum in several respects. The anal fin shows I.11 rays instead of I.9 in the type specimen; in the figure the 5th ray of D.I. is the longest, in the type specimen the first ray is the longest, the other rays decrease gradually in length. The shape of the caudal is not lanceolate in the type specimen, but much shorter, and finally the pattern of coloration is a totally other one. So I am not quite certain that Jordan & Seale had the real *Gobius mystacinus* in hands and therefore the locality Samoa is uncertain.

The U. S. National Museum contains a specimen of *Waitea* collected at Apia, Samoan Islands, by Jordan and Kellogg in 1902, which is without doubt the same fish as figured by Jordan and Seale from a drawing by W. S. Atkinson.

From a critical examination of this specimen it is clear that the fish that Jordan and Seale identified as *Gobius mystacinus* of Cuvier and Valenciennes and made the type of their genus *Waitea* is not the fish that Cuvier and Valenciennes so designated. While there is a certain similarity, the differences are so marked and fundamental

that the two fishes can not be regarded as conspecific or even congeneric.

In this case, of which there are numerous parallels in the annals of zoological nomenclature, a new genus has been assigned a genotype that is assumed to be identical with and is given the name of an existing species that, in fact, is not the same as the particular fish in hand.

The question arises (*a*) whether the old specific name *mystacinus* together with the species it had hitherto represented goes with the new genus for which it had been mistakenly designated as the type, or (*b*) whether the fish incorrectly identified as *Gobius mystacinus* should receive a new specific name. The latter course seems preferable and will here be followed, although the International Rules of Zoological Nomenclature do not appear to provide the means for a definite decision. The Opinion of the International Commission on Zoological Nomenclature that bears most directly is No. 65, dealing with cases in which a genus is based upon erroneously determined species. Out of a very voluminous correspondence and protracted discussion there was evolved the opinion "that as a specimen is the type of a species, so a species is the type of a genus, and hence when an author names a particular species as type of a new genus it is to be assumed that it has been correctly determined. If a case should present itself in which it appears that an author has based his genus upon certain definite specimens rather than upon a species it should be submitted to the Commission for consideration."

In view of the impracticability of invoking the opinion of the Commission at this time and in view of the manifest impropriety of making *Gobius mystacinus* Cuvier and Valenciennes the genotype of *Waitea* on the basis of a specimen of another species incorrectly so identified, it is herein proposed to recognize and validate the genus *Waitea* as having as its genotype the particular and only species that Jordan and Seale had before them when they established the genus. This species has been heretofore unnamed and is here described as new from specimens in the U. S. National Museum.

Waitea stomias, new species (Gobiidae)

Waitea mystacina (Cuvier and Valenciennes) Jordan and Seale, 1906, p. 407, fig. 94; Samoa. (Not *Gobius mystacinus* Cuvier and Valenciennes.)

Waitea mystacina (Cuvier and Valenciennes) Jordan and Richardson, 1908, p. 279; Luzon, Philippine Islands. (Not *Gobius mystacinus* Cuvier and Valenciennes.)

Waitea mystacina (Cuvier and Valenciennes) Herre, 1927, p. 208; Panay, Philippine Islands. (Not *Gobius mystacinus* Cuvier and Valenciennes.)

Waitea mystacina (Cuvier and Valenciennes) Koumans, 1935, p. 133; (*Gobius mystacinus* Cuvier and Valenciennes, in part.)

Description.—Elongate; body rather strongly compressed, its depth 4.8 in standard length; caudal peduncle rather slender, its least depth 2 times in depth of body, 3 in length of head, and 1.75 in its own length; head large, moderately compressed, its length 3.2 in standard length, its width 2 in its length and 0.8 its depth; snout 2.75 in head, rather strongly decurved; eye 1.6 in snout, 4.5 in head; interorbital space narrow, less than 0.5 eye; mouth large, slightly oblique, upper lip broad; maxillary extending to posterior edge of preopercle, 1.4 in head and as long as head less snout; teeth in each jaw in a narrow band of about four rows, the outer row enlarged; tip of tongue obtusely rounded; gill openings restricted, extending forward under middle of opercle, the isthmus somewhat wider than the eye.

Squamation: Scales weakly ctenoid, 27 in longitudinal series, 7 or 8 in transverse series, 12 circumpeduncular; nape, predorsal area, opercles, cheek, breast, and base of pectoral naked.

Fins: Dorsal rays VI–I,10; dorsal spines long, flexible, increasing in length from first to fifth, fifth as long as head; interdorsal space short, 0.3 eye; second dorsal base as long as head, the posterior rays reaching on caudal when depressed; caudal fin lanceolate, 1.5 times head and 0.5 combined length of head and body; anal similar to second dorsal, rays I,11; ventral fin long, reaching to anal; pectoral pointed, extending to opposite second branched ray of dorsal and anal fins, pectoral rays 19.

Coloration: Midside of body with five roundish black areas larger than eye, the last at base of caudal fin; back and side with small roundish black or dark brown spots in irregular disposition, top of head mottled with dark brown; rays of both dorsal fins with small black spots which form into irregular transverse lines; caudal with six broad, curved, dark cross bands; anal dusky; ventrals purplish black; pectorals plain.

Type.—The type, 7.4 cm in total length, was collected by Jordan and Kellogg in 1902 at Apia, on Upolu, one of the Samoan Islands. U.S.N.M. no. 51816.

Other specimens.—The U. S. National Museum contains two other specimens (nos. 99295 and 99296) taken in 1909 by an *Albatross* party in the Agus River near Camp Overton, Mindanao, Philippine Islands. These specimens, 6.7 and 6.5 cm long, agree very closely with the type in form and color, but have an increased number of scales in longitudinal series (29 and 31) and show some variation in the dentition, with the inner row of teeth in the upper jaw enlarged and with an anterior patch of teeth in the lower jaw curved canines.

Remarks.—As already indicated, this is the fish that Jordan and Seale misidentified as *Gobius mystacinus* of Cuvier and Valenciennes and made the genotype of *Waitea.*

Waitea stomias, as represented by the type from Samoa and the two specimens from Mindanao in the national collection, can not be the same species that Herre (1927) called *Waitea mystacina* and considered "unmistakably" represented in Jordan and Seale's figure. To show that Herre's two specimens 45 and 46 mm long from Iloilo are different it is necessary only to note

that the scales in longitudinal series are given by Herre as 36 or 38 (as against 27 in *stomias*), the scales in transverse series are stated to be about 16 (against 7 or 8 in *stomias*), the branched anal rays are given as 9 (against 11), and the shape of the first dorsal and caudal fins is entirely dissimilar.

Genus **Mahidolia** H. M. Smith

The genus *Mahidolia* was proposed by H. M. Smith (1932) for the accommodation of a Siamese estuarine goby thought to be new and given the name *normani* by Smith and Koumans in honor of J. R. Norman, of the British Museum. Several years later Koumans (1935), having examined the type of Cuvier and Valenciennes' *Gobius mystacinus* in the Paris Museum, concluded that *normani* from Siam is identical with *mystacinus* from Java. While accepting this conclusion I dissent from Koumans' various contentions (1) that *Mahidolia* is a synonym of *Waitea*, (2) that *Mahidolia normani* is identical with *Waitea mystacina* of Jordan and Seale, and (3) that the name *Waitea mystacina* of Jordan and Seale represents the same fish that Cuvier and Valenciennes called *Gobius mystacinus*.

It is remarkable that with all the revising that has been accorded the multicomposite genus *Gobius* (Linnaeus, 1758), the species *Gobius mystacinus* dating from 1837 should have remained untouched until a comparatively recent date and even then, in my opinion, should have been incorrectly allocated. As long ago as 1861 Günther said of *Gobius mystacinus* that "this species appears to be the type of a separate genus."

The proper name and synonymy of the genotype of *Mahidolia* are as follows:

Mahidolia mystacina (Cuvier and Valenciennes)

Gobius mystacinus Cuvier and Valenciennes, 1837, p. 124.—Günther, 1861, p. 48.

Waitea mystacina Herre, 1927, p. 208; in part.—Koumans, 1931, p. 67, in part; 1935, p. 133, in part.

Mahidolia normani Smith and Koumans, 1932, p. 256, pl. 23, fig. 1.

Comparison of Waitea and Mahidolia

In view of the uncertainty that has arisen with regard to the distinctness of *Waitea* and *Mahidolia*, there are presented comparisons of certain features in the two genera, and there are shown outline figures of the genotypes. These figures alone are conclusive evidence that *Waitea stomias* (= *Waitea mystacina* of Jordan and Seale and of Koumans) can not as claimed be the same fish as *Gobius mystacinus* of Cuvier and Valenciennes.

The squamation in described members of the two genera is quite different. In both the body is covered with weakly ctenoid scales and the head is scaleless, but in *Waitea* the breast is naked and in *Mahidolia* it is fully scaled. The scales in longitudinal series number 27 in *Waitea stomias* from Samoa but in specimens from the Philippines there are several more scales in that series; in transverse series the scales are 7 or 8. In *Mahidolia* from Siam the scales in longitudinal series number 40 to 45 and in transverse series 14 to 16.

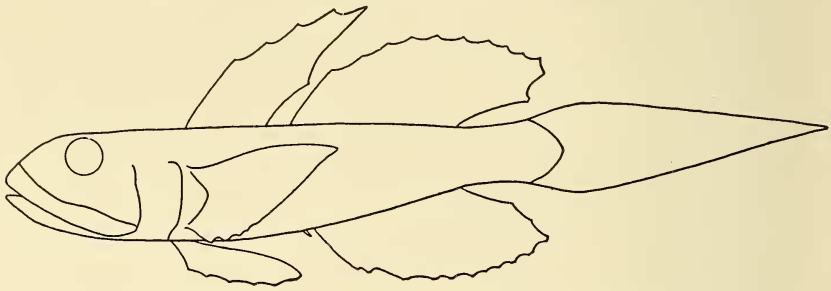

Fig. 1.—*Waitea stomias*, new species: The type specimen, from Samoa. Length, 7.4 cm.

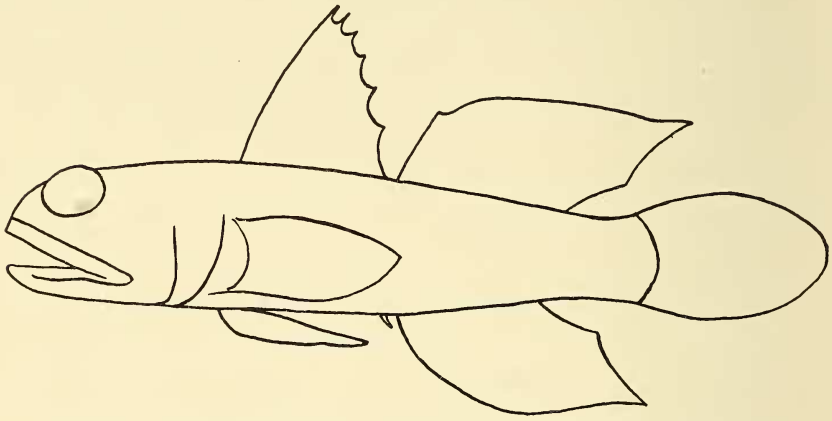

Fig. 2.—*Mahidolia mystacina* (Cuvier and Valenciennes): The type specimen of *M. normani*, from Siam. Length, 6.2 cm.

The dentition is not markedly different in the two genera. The teeth in both jaws are in about four rows, with the median teeth minute. In *Waitea* the outer row of teeth in both jaws are enlarged and approach caninoid, and the inner teeth in the upper jaw may be slightly enlarged or small. In *Mahidolia* only the outer teeth in both jaws are somewhat enlarged.

The size of the gill openings is another point of difference. In *Waitea* these are quite restricted, extending forward to a point oppo-

site the base of the ventral fins; and the isthmus is correspondingly wide. In *Mahidolia* the gill openings extend well forward to a point under the anterior margin of the preopercle, or about half the distance between the posterior edge of the opercle and the eye; and the isthmus is correspondingly narrow.

As regards the fins, there are entirely different types of spinous dorsal and caudal fins in the two genera. In *Waitea* the length of the spinous rays *increases* gradually from the first to the fifth, the sixth being the shortest. In *Mahidolia* the length of the spinous rays *decreases* gradually from the first to the sixth. The caudal fin in *Waitea* is very long, lanceolate, and sharp-pointed; its length is half the combined length of head and body. The caudal fin in *Mahidolia* is obtusely rounded, its depth two-thirds its length, and its length less than one-third the combined length of head and body.

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MYCOLOGY.—*Descriptions of* Elsinoë dolichi, *n. sp., and* Sphaceloma ricini, *n. sp.*[1] ANNA E. JENKINS, U. S. Department of Agriculture, Washington, D.C., and C. C. CHEO, National Tsing-hua University, Kunming, China.

Descriptions of two new species of Myriangiales are contained in an unpublished paper by Cheo and Jenkins.[2] The first is a species of *Elsinoë* on hyacinth bean (*Dolichos lablab* L.) for which the name *E. dolichi* is proposed. The other is on castor bean (*Ricinus communis* L.), and this is described under the name of *Sphaceloma ricini*. Both species were under study by the senior author when they were discovered in China, as explained in the paper. The first one had also been studied cooperatively with A. A. Bitancourt, of the Instituto Biologico, São

[1] Received June 24, 1941.
[2] CHEO, C. C. and JENKINS, ANNA E. *Diseases caused by* Elsinoë *and* Sphaceloma *discovered in Yunnan, China.* Contribution presented by the senior author at the celebration on April 18, 1940, of the 30th anniversary of the National Tsing-hua University, Kunming, Yunnan, China.